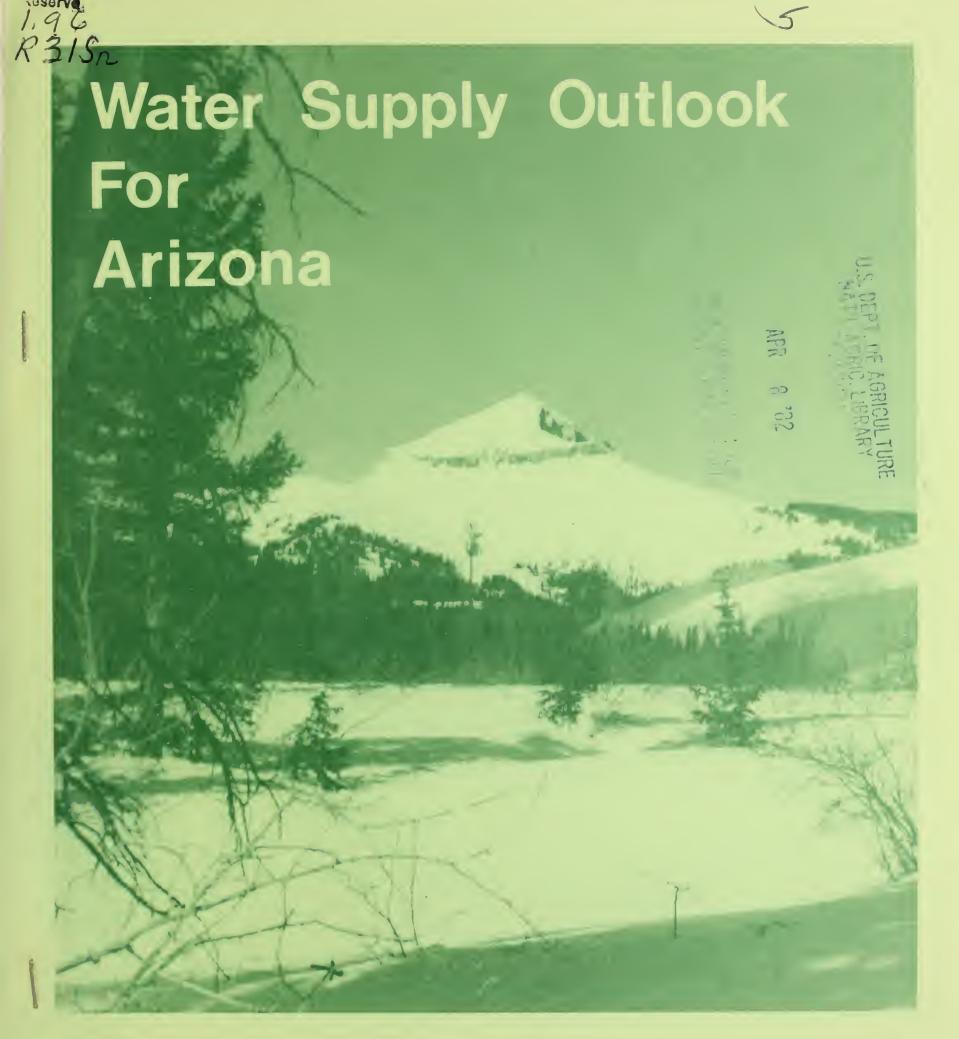
Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.







SOIL CONSERVATION SERVICE U.S. DEPARTMENT OF AGRICULTURE

Cooperating with

SALT RIVER VALLEY WATER USERS ASSOCIATION
AND
ARIZONA DEPARTMENT OF WATER RESOURCES



TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1900 snow courses in Western United States and in the Columbia Basin in British Columbia. Networks of automatic snow water equivalent and related data sensing devices, along with radio telemetry are expanding and will provide a continuous record of snow water and other parameters at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

Cover Photo: "Lone cone, near Norwood, Colorado, Blanketed by its winter mantle of snow."

PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, West Technical Service Center, Room 111, 511 N.W. Broadway, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	204 E. 5th. Ave., Room 217, Anchorage, Alaska 99501
Arizona	6029 Federal Building, Phoenix, Arizona 85025
Colorado (N. Mex.)	P. O. Box 17107, Denver, Colorado 80217
Idaho	Room 345, 304 N. 8th. St., Boise, Idaho 83702
Montana	P.O. Box 98, Bozeman, Montana 59715
Nevada	P. O. Box 4850, Reno Nevada 89505
Oregon	1220 S.W. Third Ave., Portland, Oregon 97204
Utah	P.O. Box 11350, Salt Lake City, Utah 84147
Washington	360 U.S. Court House, Spokane, Washington 99201
Wyoming	P. O. Box 2440, Casper, Wyoming 82601

PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Snow Surveys Branch, California Department of Water Resources, P.O. Box 388, Sacramento, California 95802 --- for British Columbia by the Ministry of the Environment, Water Investigations Branch, Parliament Buildings, Victoria, British Columbia V8V 1X5 --- for Yukon Territory by the Department of Indian and Northern Affairs, Northern Operations Branch, 200 Range Road, Whitehorse, Yukon Territory Y1A 3V1 --- and for Alberta, Saskatchewan, and N.W.T. by the Water Survey of Canada, Inland Waters Branch, 110-12 Avenue S.W, Calgary, Alberta T3C 1A6.



WATER SUPPLY OUTLOOK FOR ARIZONA

and

FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

Issued by

NORMAN A. BERG

CHIEF

SOIL CONSERVATION SERVICE WASHINGTON, D.C.

Released by

VERNE M. BATHURST

STATE CONSERVATIONIST SOIL CONSERVATION SERVICE PHOENIX, ARIZONA

In Cooperation with

WESLEY E. STEINER
DIRECTOR
ARIZONA DEPARTMENT OF
WATER RESOURCES

PRESIDENT
SALT RIVER VALLEY WATER
USERS ASSOCIATION

.4

Report prepared by

RONALD A. JONES
SHOW SURVEY SUPERVISOR
SOIL CONSERVATION SERVICE
ROOM 3008 FEDERAL BUILDING
PHOENIX, ARIZONA 85025



STREAMFLOW IN ARIZONA DURING THE PERIOD MARCH THROUGH MAY IS FORECAST TO RANGE BETWEEN 66% AND 124% OF AVERAGE ON MAJOR STREAMS.

WATER SUPPLY

March-May forecasts show that streamflow in Arizona and western New Mexico will be closer to normal than earlier forecasts indicated. This is the result of improved moisture conditions during January and February. The Verde River is forecast to produce 124% of average flow for the March-May period. The Salt River is forecast at 87% of average and Tonto Creek at 91%. Forecasts on the Gila River are for 74% of average flow at Solomon, 78% at Virden, and 85% at Gila. The San Francisco River is expected to be around 78% of average. The upper Little Colorado River is also forecast at near 70% of average.

SNOW COVER

The snowpack remains above average in Arizona and near average in western New Mexico. Warm storms in mid-February brought rain to elevations below 7,000 feet. This, coupled with above average temperatures in the last half of February, melted most of the snow below 7,000 feet. Snotel sites between 7,200 feet and 7,600 feet elevation still have snow cover but are showing water discharge from the pack. Snotel sites above 7,600 feet generally indicate little loss of snow-pack water as of March 1.

The March 1 snowpack is 221% of average on the Verde Watershed and melting. Snowpack water is 126% of average on the Salt River with little melt loss indicated above 7,600 feet elevation. The upper Little Colorado River snowpack is 128% of average and on the Gila-San Francisco drainage it is 103% of average.

PRECIPITATION

February precipitation was above average over the entire watershed of central Arizona and western New Mexico. Storms brought rain to the lower watersheds and added snow to the higher elevations. There have now been two straight months of above average precipitation. The rain of mid-February produced high runoff particularly on the Verde River.

STREAMFLOW

February streamflow was above average on streams entering the Salt River Project. Inflow to the Salt River Project system was 234,000 acre feet. Runoff was near average on the upper Gila, but below average on the San Francisco River. Streamflow on the Gila at Solomon was below average.

Stream	Flow-% of Average
	February *
Salt River	150%
Verde River	29 2%
Gila River at Solomon	68%
Gila River at Virden	90%
San Francisco River at Clifton	42%

RESERVOIR STORAGE

Water in storage at all major reservoirs or reservoir systems is near average for March 1. Salt River Project reports a total storage of 1,407,000 acre feet which is 70% of capacity. Current storage in San Carlos reservoir is 265,000 acre feet or 28% of capacity. Lake Pleasant is 44% full with 69,000 acre feet. Four major Colorado River reservoirs have a combined storage of 44,925,000 acre feet which is 84% of capacity.

STREAMFLOW FORECASTS ABOUT MARCH 1, 1982		THIS YEA	PAST RECORD			
	FORE		FORECAST	THOUSAND ACRE FEET		
BASIN, STREAM and/or FORECAST POINT	Thousand Acre Feet	Percent of Average	PERIOD	Last Year	Average +	
SALT RIVER DRAINAGE						
Salt near Roosevelt	220	87	Mar-May	40.5	252.9	
Balt hear Roosevelt	80	95	March	43.8	84.6	
	80	95	March	43.0	04.0	
Tonto Creek near Roosevelt	26	91	Mar-May	11.2	28.7	
11	18	114	March	5.7	15.8	
Verde River above Horseshoe	176	124	Mar-May	63.0	141.8	
II	115	194	March	25.1		
	113	194	march	25.1	59.2	
Total Salt River Project Streams	422	100	Mar-May	114.7	423.4	
n	213	133	March	74.6	159.6	
GILA RIVER DRAINAGE						
Gila River at Calva	32	49	Mar-May	7.2	65.9	
			1	,	03.7	
Gila River near Gila	34	85	Mar-May	12.2	40.2	
Gila River near Solomon	70	74	Mar-May	28.4	94.9	
II DOTOMON	30	68	March	11.7	43.8	
			March	11./	43.0	
Gila River near Virden	38	78	Mar-May	10.7	48.6	
Frisco River at Clifton	38	7 8	Mar-May	16.4	49.0	
Frisco River at Glenwood	19	78	Mar-May	5.4	24.4	
LITTLE COLORADO RIVER DRAINAGE						
Little Colo. River above Lyman	6.9	66	Mar-June	2.7	10.4	
Dam		77				
Greer	5.5	77	Mar-June	4.5	7.1	
GRANITE CREEK DRAINAGE						
Granite Creek	1.7		Mar-May			
Willow Creek	1.5		Mar-May			
MINDEC DIVER BRAINAGE						
MIMBRES RIVER DRAINAGE Mimbres River near Mimbres	2.6		Mar-May			
minutes kivel hear rimbles			riai -riay			
COLORADO RIVER DRAINAGE						
Virgin River near Littlefield	34	71	Apr-June	32.8	47.9	
Lake Mary Inflow	5.3	123	Mar-May		4.3	
			•			
+ Based on 15-year period, 1963-77 * Average for less than 15 years.						
	-					

WATER SUPPLY INVENTORY SALT RIVER VALLEY SYSTEM

IN ACRE-FEET

AVERAGE WATER SUPPLY ON MARCH 1

ANTICIPATED WATER SUPPLY MARCH 1, 1982

3,000,000 2,500,000 2,000,000 AVERAGE FORECAST RUNOFF MARCH-MAY 1982 MARCH-MAY RUNOFF 1,500,000 AVERAGE SUMMER AVERAGE SUMMER RUNOFF RUNOFF 1,000,000 RESERVOIR STORAGE AVERAGE MARCH 1, 1982 MARCH 1 RESERVOIR STORAGE 500,000 0

RESERVOIR STORAGE (Thousand Acre Feet)

BASIN or STREAM	RESERVOIR	Usable		Usable Storage	Averaget
GILA RIVER		Capacity	This Year	Last Year	Average
DRAINAGE					
Agua Fria	Lake Pleasant	157.6	68.8	103.5	75.5
Granite	Watson Lake	4.7	4.6	1.9	3.0
Granite	Willow Creek	6.1	2.2	0.8	2.9*
Gila	San Carlos	945.0	265.0	645.0	252.0
Gila	Painted Rock Dam	2,492.0			
Salt (4)	Roosevelt, Apache, Canyon & Saguaro	1,709.0	1,206.0	1,406.0	1,227.0
Verde (2)	Bartlett and Horseshoe	309.6	201.0	53.7	140.3
Salt and Verde	6 Salt River Project Reservoirs	2,019.0	1,407.0	1,460.0	1,367.0
COLORADO RIVER DRAINAGE					
Colorado	Lake Havasu	619.4	559.0	553.7	541.4
Colorado	Lake Mohave	1,810.0	1,632.0	1,706.0	1,673.0
Colorado	Lake Mead	26,159.0	23,248.0	23,547.0	17,526.0
Colorado	Lake Powell	25,002.0	19,486.0	21,645.0	10,064.0
Little Colorado	Lyman	30.6		23.4	15.6
Little Colorado	Show Low Lake	5.1	0.8	0.6	1.8
† Based on 15-year * Average is for lo	average, 1963-77 ess than 15 years of	record.	.4		

BASIN SNOW COVER GOES WEST SATELLITE

FEBRUARY 22, 1982



PREVIOUS SNOW COVER

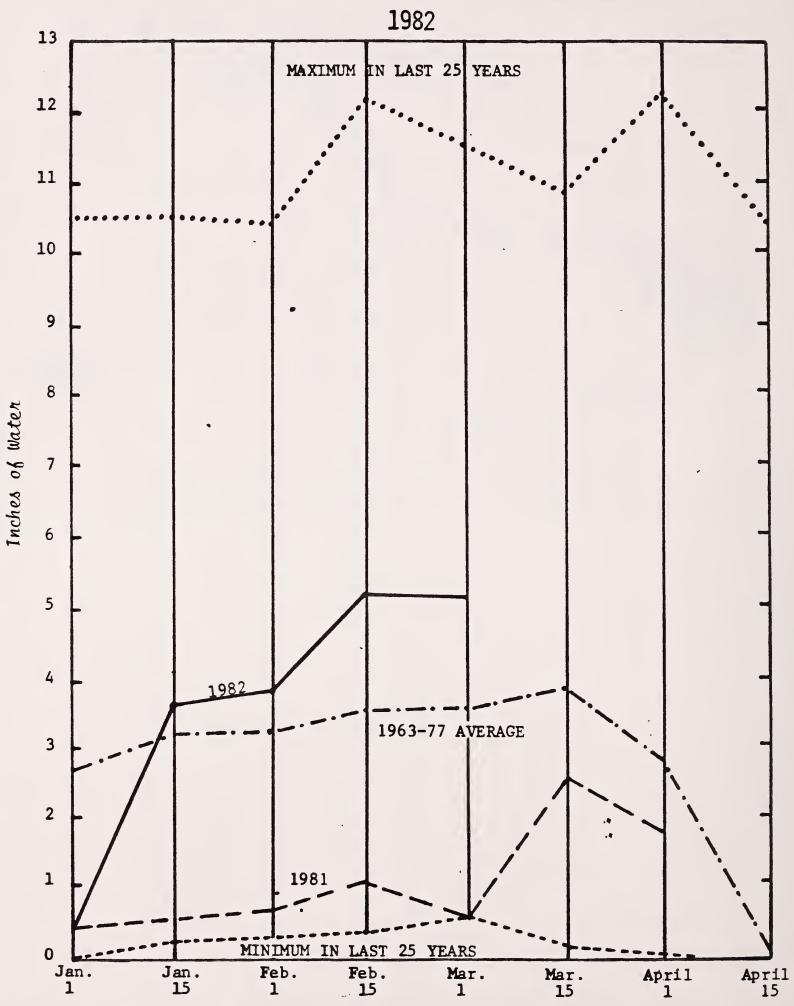
		TRETTOOS	SNUW LUVER		····
	VERDE RIVER	SALT RIVER		VERDE RIVER	SALT RIVER
December 1981 2 7 8 9 10	36% 22% 14% 13% 2%	24% 8% 7% 4% 3 %			
January 1982 4 13 25 26	66% 56% 59% 55%	57% 43% 18% 18%			
February 1982 1 12 19 22	20% 18% 17% 13%	18% 21% 18% 16%		ंक (क) वर	

SUMMARY OF SHOW MEASUREMENTS (COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged		ATER AS PERCENT OF:
ABOUT FEBRUARY 15, 1982		CEST 1 GB	Aveage
Gila	10	557	100
Salt	10	388	135
Verde	10	607	212
Little Colorado	5	3 05	122
ABOUT MARCH 1, 1982			
Gila	10	355	103
Salt	10	590	126
Verde	10	1,200	221
Little Colorado	5	531	128
		:	
		.4 .4 .4	

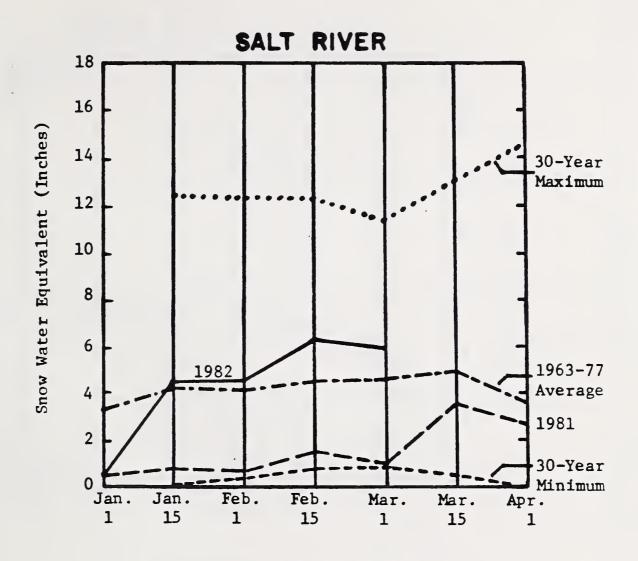
ARIZONA

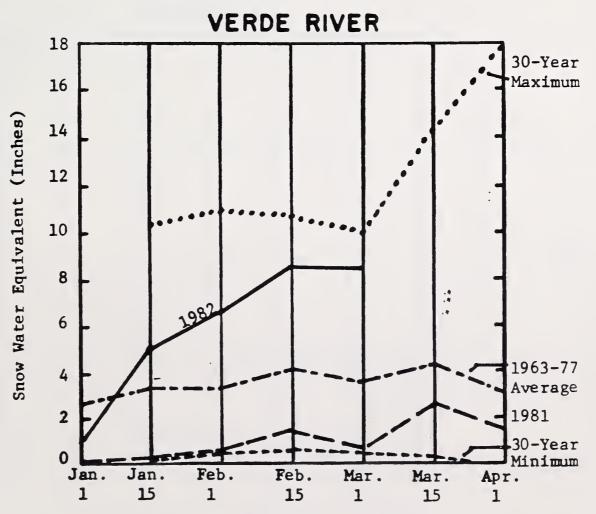
AVERAGE SNOW COVER



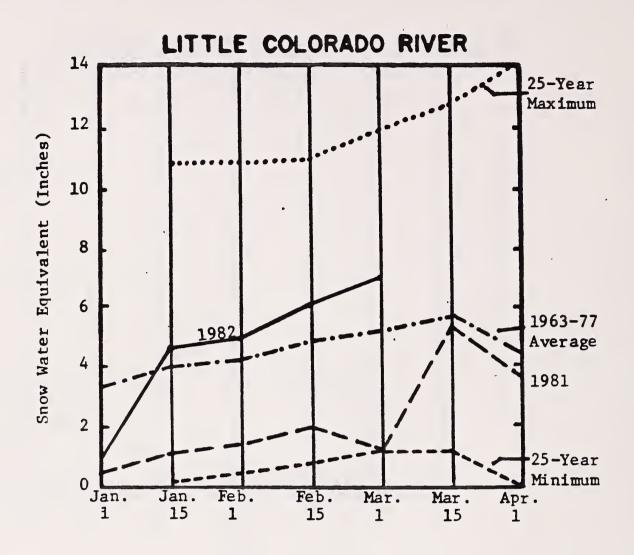
This graph represents the average snow water content on eleven selected snow courses on Arizona Sub-Watersheds.

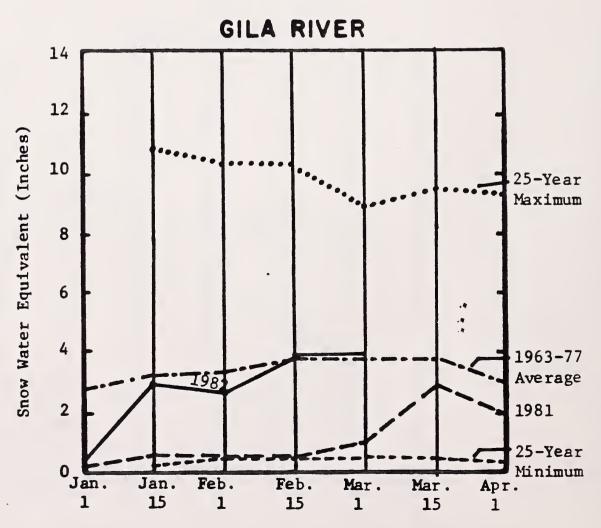
WATERSHED SNOW COVER





WATERSHED SNOW COVER





'

WSFB-X138

x

X

WSF8-X138

DRAINAGE BASIN and/or SNOW COURSE NAME					Was - C	
NAME	1 5.	Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Last Year	Average +
	Elevation	1			Last 168	Average 1
SALT RIVER					1	
Baldy*	9220	2/25	28	8.0	0.7	6.5
BALDY SNOTEL	9220	3/1	_	8.5	2.5	
Beaver Head	8000	2/25	8	2.1	0.9	2.3
BONITO ROCK SNOTEL	8270	3/1	_	10.6		2.5
Canyon Creek	7500	2/25	12	4.0	0.8	3.3
Canyon Point	7600	2/25	19	6.5	0.8	3.8*
Coronado Trail	8400	2/25	11	2.9	1.1	2.7
CORONADO TRAIL SNOTEL	8400	3/1	_	2.0	0.0	2.7
Forest Dale	6430	2/25	0	0.0		0.6
Ft. Apache			1		0.0	0.6
Hannagan Meadows	9160	2/25	31	9.0	1.9	7.1
_	9090	2/25	3 5	9.5	4.0	8.2
HANNAGAN MEADOWS SNOTEL	8960	3/1	_	10.7	5.0	
Hawley Lake	8250	2/25	32	10.2	0.7	6.2
HAWLEY LAKE SNOTEL	8250	3/1	-	9.8		
Heber	7640	2/25	15	5.4	0.7	3.6
HEBER SNOTEL	7640	3/1	-	7.3	0.7	
Maverick Fork	9050	2/25	32	9.5	0.4	8.1
MAVERICK FORK SNOTEL	9200	3/1	_	7.9	1.3	
McNary	7225	2/25	11	4.0	0.0	1.9
McNARY SNOTEL	7225	3/1	_	3.4	0.0	
Milk Ranch	7000	2/25	2	0.6	0.0	0.7
Mt. Ord (A)	11000		EDULED			
Nutrioso*	8500	2/25	5	1.4	0.3	1.9
Promontory Butte	7900	2/26	45	16.6	2.6	11.5
PROMONTORY SNOTEL	7900	NO REP		10.0		11.0
Smith Cienega (A)	9850		HEDULED		3.5	
Sunrise Summit				1, 0	7	10.04
Wilson Lake	10600	2/24	49	14.8	4.2	12.2*
	9000	2/24	38	12.0	3.4	9.4
Workman Creek	6900	LATE RI	PORT		0.0	5.4
WORKMAN CREEK SNOTEL	6900	3/1	-	7.6	0,0	
OWER COLORADO RIVER						
Bill Williams Intermediate	8550	2/26	44	13.8	1.0	7.4*
Bill Williams Summit	8950	2/26	54	16.6	2.9	10.1*
Bright Angel	8400	LATE R	PORT			
Chalender *	7100	2/25	20	7.8	0.3	2.4
Fort Valley	7350	2/25	15	4.5	0.2	1.6
Grand Canyon	7500	2/27	9	1.9		1.4
Grand Canvon	7720	2/26		1	1.8	6.6*

OW ABOUT MARCH 1, 1982			THIS YEAR		PAST RI	
DRAINAGE BASIN and/or SNOW COURSE		Date	Snow Depth	Water Content	Water Conte	
NAME	Elevation	of Survey	(Inches)	(Inches)	Last Year	Average +
GILA RIVER						
Bear Wallow	8100	2/25	10	5.4	0.0	3.3
Beaver Head	8000	2/25	8	2.1	0.9	2.3
Coronado Trail	8400	2/25	11	2.9	1.1	2.7
CORONADO TRAIL SNOTEL	8400	3/1	_	2.0	0.0	
Emory Pass #1 *	780 0	DIS	CONT	INUE		
Emory Pass #2 *	7800	2/24	T	0.2	0.0	1.5*
Frisco Divide	8000	2/25	8	2.2	0.0	2.3
FRISCO DIVIDE SNOTEL	8000	3/1	_	2.4	0.0	2.5
Hannagan Meadows *	9090	2/25	35	9.5	4.0	8.29
HANNAGAN MEADOWS SNOTEL	8960	3/1	_	10.7	5.0	0.2.
Hummingbird (A)	10550	2/24	44	11.9	1.8	13.8
LOOKOUT MOUNTAIN SNOTEL	8150	3/1	_	2.5	1.0	13.0.
McKnight Cabin * (A)	9300	2/24	25	7.0	0.0	3.8
Mogollon	70 00	NO REP	i e	/.0	0.0	
Nutrioso	8500	2/25	5	1.4	1	0.7
Redstone Trail	8600	NO REP	_	1.4	0.3	1.9
Rose Canyon	7300	2/25	1	0.6	1.3	6.6
SIGNAL PEAK SNOTEL	8360	3/1	_	9.9	0.0	1.8
Silver Creek Divide				9.9		
	9070	NO REP	ORI	10.0	3.2	10.0
SILVER CREEK SNOTEL	9070	3/1	_	10.8	3.1	
State Line	8000	2/25	7	1.7	0.0	2.2
Whitewater (A)	10750	2/24	72	19.4	13.0	17.0
VERDE RIVER						
Baker Butte	7330	2/25	22	7.9	0.9	6.0
BAKER BUTTE SNOTEL	7330	3/1	_	6.8	0.8	
Baker Butte #2	7700	2/25	47	15.7	2.3	11.4
Camp Wood	5700	2/25	0	0.0	0.0	0.2
Chalender *	7100	2/25	20	7.8	0.3	2.4
Copper Basin Divide	6720	2/25	2	0.8	0.2	1.2
Fort Valley	7350	2/25	15	4.5	0.2	1
FRY SNOTEL	7200	3/1	15	8.2	0.0	1.6
Gaddes Canyon	7600	2/25	38	12.8	l .	/ 0
Happy Jack	7630	2/25	29	10.0	0.9	4.8
Iron Springs *	6200	2/25	0	0.0	0.5	3.3
Mingus Mountain	7100	1	2		0.3	0.2
Mormon Lake *		2/25		0.6	0.1	0.7
Mormon Mountain	7350	2/25	27	9.1	0.7	4.0
	7500	2/25	34	12.1	0.8	5.0
MORMON MOUNTAIN SNOTEL	750 0	3/1		10.2	1.3	
Mormon Mtn. Summit #2	8470	l .	HEDULED			
Newman Park	6750	2/25	12	4.7	0.7	1.7
Snow Bowl #1	10260	2/25	65	18.0	2.5	8.9
Snow Bowl #2	11000	2/25	47	14.4	5.6	13.9
SUGAR LOAF SNOTEL	6120	3/1	-	0.0	0.0	
White Horse Lake Jct.	7180	2/26	21	7.0	0.5	2.8
WHITE HORSE LAKE SNOTEL	71 80	3/1	-	8.0	1.2	
White Spar	6000	2/25	0	0.0	0.0	0.2
. 1963-77 15-year period. (*)	Adiacon	t draina	0. (**	1963-7	Adjusto	d
Average. (A) Aerial observe	tion w	+ at a said	1	1 703-7		
nveutle. In aviani nikonii	14 4 1) El a 14 E	מחח <i>תטג</i> ט	TOUT OLT	Amatod	Snotel o	into es

14

DRAINAGE BASIN and/or SNOW COURSE			THIS YEAR		PAST R	mt (inches)
NAME NAME	Elevation	Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Last Year	Average
ITTLE COLORADO RIVER						
Baldy	9220	2/25	28	8.0	0.7	
· · · · · · · · · · · · · · · · · · ·	-	-	20	1	0.7	6.5
BALDY SNOTEL	9220	3/1	-	8.5	2.5	
Canyon Creek	7 500	2/25	12	4.0	0.8	3.3
Canyon Point	76 00	2/25	19	6.5	0.8	3.8
Cheese Springs	8 600	2/24	26	7.5	2.8	6.5
Forest Dale	6430	2/25	0	0.0	0.0	0.6
Ft. Apache	91 60	2 /25	31	9.0	1.9	7.1
Fort Valley	735 0	2/25	15	4.5	0.2	1.6
Happy Jack	763 0	2/26	29	10.0	0.5	3.3
Heber	7640	2/25	15	5.4	0.7	3.6
HEBER SNOTEL	7640	3/1	_	7.3	0.7	3.0
Lake Mary	697 0	2/25	21	6.1	0.5	
McNary	7225	2/25	11		0.0	100
MCNARY SNOTEL	7225 7225	3/1	1	4.0		1.9
Mormon Lake			-	3.4	0.0	/ 0
	73 50	2/25	27	9.1	0.7	4.0
Mormon Mountain	75 00	2/25	34	12.1	0.8	5.0
MORMON MOUNTAIN SNOTEL	75 00	3/1		10.2	1.3	
Mormon Mtn. Summit #2	8470		HEDULED			
Nutrioso *	85 00	2/25	5	1.4	0.3	1.9
Promontory Butte	79 00	2/26	45	16.6	2.6	11.5
PROMONTORY SNOTEL	7 900	NO REP	DRT		3.5	
Snow Bowl #1	10260	2/25	65	18.0	2.5	8.9
Snow Bowl #2	11000	2/25	47	14.4	5.6	13.9
Wilson Lake	9000	2/24	38	12.0	3.4	9.4
	7000	_,_,		12.0	3.4	7.4
			.*	-54		
10/2 11 17	. \					
1963-77 15-year period. (*) Average. (A) Aerial observ	r Adjacen	ter cont	ge. (**	1963-7	Adjuste	ata is
edited.	wu	COM	In cold	meu.	notes as	100

					Marca Carre	at 1. a. a
DRAINAGE BASIN and/or SNOW COURSE NAME	Elevation	Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Conte	Average "
RATE	Elevato	1	<u> </u>			Ave. eXe
SALT RIVER						
Baldy *	9220	2/10	24	6.0	2.4	5.9
BALDY SNOTEL	9220	2/15	-	8.4	3.8	
Beaver Head	8000	2/16	10	2.8	0.3	2.7
BONITO ROCK SNOTEL	8270	2/15	_	9.9		2.7
Canyon Creek	7500	2/11	21	5.6	0.9	3.5
Canyon Point	7600	2/12	30	8.6	1.4	4.0
Coronado Trail	8400	2/16	11	3.9	0.0	
CORONADO TRAIL SNOTEL	8400	2/15		4.0		2.5
Forest Dale	6430	2/13	3	1	0.0	
				1.2	0.1	1.1
Ft. Apache	9160	2/10	28	6.5	2.9	6.4
Hannagan Meadows	9090	2/16	3 6	7.8	3.1	7.9
HANNAGAN MEADOWS SNOTEL	8960	2/15	_	9.6	5.3	
Hawley Lake	825 0	2/12	40	11.6	1.8	6.0
HAWLEY LAKE SNOTEL	82 50	2/15	-	8.4	1.1	
Heber	7640	2/11	25	7.3	1.1	3.7
HEBER SNOTEL	76 40	2/15	_	9.6	1.3	
Maverick Fork	9050	2/15	_	7.6 E		7.4
MAVERICK FORK SNOTEL	920 0	2/15	_	7.6	2.9	
McNary	7225	2/12	20	6.7	1.0	2.4
MCNARY SNOTEL	7225	2/15	_	5.1	0.5	2.4
Milk Ranch	7000	2/12	11	4.1		1 5
Mt. Ord (A)	11000		HEDULED	7.1	1.0	1.5
Nutrioso *		2/16	6	2.2		
	8500	2/10	52	16.0	0.0	1.9
Promontory Butte	7900	NO REP	1	16.0	3.4	10.0
PROMONTORY SNOTEL	7900	1			2.9	
Smith Cienega (A)	9 850	1	HEDULED			
Sunrise Summit	10600	2/11	62	14.5	4.1	11.4
Wilson Lake	90 00	2/10		9.0	3.7	8.3
Workman Creek	69 00	2/12	27	9.4	2.1	5.5
WORKMAN CREEK SNOTEL	69 00	2/15	-	11.3	1.6	
OWER COLORADO RIVER						
Bill Williams Intermediate	8550	2/22	47	14.9	1.4	7.0
Bill Williams Summit	8950	2/22	53	16.1	2.9	9.0
Bright Angel	8400	2/22	42	9.0		7.0
Chalender *	7100	2/15	26	8.0	0.9	2.6
Fort Valley	73 50	1	1	1		1
•		l .	1			2.0
		1		1	1	1.5
williams 5ki kun	1120	2/18	1	1	1.8	6.1
Grand Canyon Williams Ski Run 1963-77 15-year period. (* Average. (A) Aerial observe edited. E = estimate.	7500 7720) Adjacer	2/16 2/15 2/18 t draina ater con	50 ge. (**	6.0 5.7 13.9 .* 1963-7 imated.	0.4 0.3 1.8 7 Adjust Snotel	1 6 6

NOW ABOUT FEBRUARY 15, 1982			THIS YEAR	Y	PAST RE	CORD
DRAINAGE BASIN and/or SNOW COURSE		Date	Snow Depth	Water Content	Water Conte	
NAME	Elevation	of Survey	(inches)	(Inches)	Last Year	Average *
GILA RIVER						
Bear Wallow	8100	2/16	19	9.8		2 0
Beaver Head	8000	2/16	10	2.8		3.8
Coronado Trail	8400			1 1	0.3	2.7
		2/16	11	3.9	0.0	2.5
CORONADO TRAIL SNOTEL	8400	2/15		4.0	0.0	
Emory Pass #1 *	7800		ONTI			_
Emory Pass #2 *	7800	2/16	1	0.4	0.3	2.0
Frisco Divide	8000	2/12	10	2.5	0.1	2.3
FRISCO DIVIDE SNOTEL	8000	2/15	_	3.7	0.0	
Hannagan Meadows *	9090	2/16	36	7.8	3.1	7.9
HANNAGAN MEADOWS SNOTEL	8960	2/15	-	9.6	5.3	
Hummingbird (A)	10550		HEDULED			12.6
LOOKOUT MOUNTAIN SNOTEL	8150	2/15	-	3.0		
McKnight Cabin * (A)	9300	NOT SC	HEDULED			3.4
Mogollon	7000	NO REP	DRT		0.0E	1.2
Nutrioso	8500	2/16	6	2.2	0.0	1.9
Redstone Trail	8600	NO REP	PRT		1.0E	6.3
Rose Canyon	7300	2/16	8	4.6		2.5
SIGNAL PEAK SNOTEL	8360	2/15	-	10.5		
Silver Creek Divide	9070	NO REP	DRT		2.4E	9.4
SILVER CREEK SNOTEL	9070	2/15	_	8.9	2.4	
State Line	8000	2/12	12	2.8	0.0	2.4
Whitewater (A)	10750		HEDULED			15.1
						13.1
VERDE RIVER						
Baker Butte	7330	2/11	30	8.4	2.1	6.2
BAKER BUTTE SNOTEL	7330	2/15	_	8.5	1.2	
Baker Butte #2	7700	2/11	48	12.6	3.0	9.9
Camp Wood	5700	2/12	T	0.0	0.0	0.4
Chalender *	7100	2/16	26	8.0	0.9	2.6
Copper Basin Divide	6720	2/12	7	2.6	0.9	2.0
Fort Valley	7350	2/16	19	6.0	0.4	2.0
FRY SNOTEL	7200	2/15	_	10.8	1.4	2.0
Gaddes Canyon	7600	2/14	3 3	10.5	1.7	4.5
Happy Jack	7630	2/12	37	10.7	1.3	3.8
Iron Springs *	6200	2/16	0	0.0	•	1
Mingus Mountain	7100	2/14	1	0.1	0.0	0.4
Mormon Lake *		2/14 2/16	30	9.8	0.1	1.1
	7350	(Į.	1.6	4.1
Mormon Mountain	7 500	2/16	38	11.9	1.6	4.8
MORMON MOUNTAIN SNOTEL	7500	2/15	-	10.2	1.7	
Mormon Mtn. Summit #2	8470	NOT SCI				
Newman Park	6750	2/16	22	6.6	0.9	2.2
Snow Bowl #1	10260	2/13	66	16:9	3.1	8.4
Snow Bowl #2	11000	2/13	48	12.5	5.3	13.3
SUGAR LOAF SNOTEL	6120	2/15	-	1.5		
White Horse Lake Jct.	7180	2/18	27	7.7	1.0	3.0
WHITE HORSE LAKE SNOTEL	7180	2/15	_	9.5	1.6	
White Spar	6000	2/16	0	0.0	0.0	0.6
+ 1963-77 15-year period. (*)	Adjacon	drainac	0. (**)	1963-77	Adiusto	d Augh
age. (A) Aerial observation	: unton	contont	ostimato	d Snat	of data	is
edited. E = estimate.	- Turet	Concent	- Commune	u. Shul	er unin	

- 1963-19⁻⁻ period.

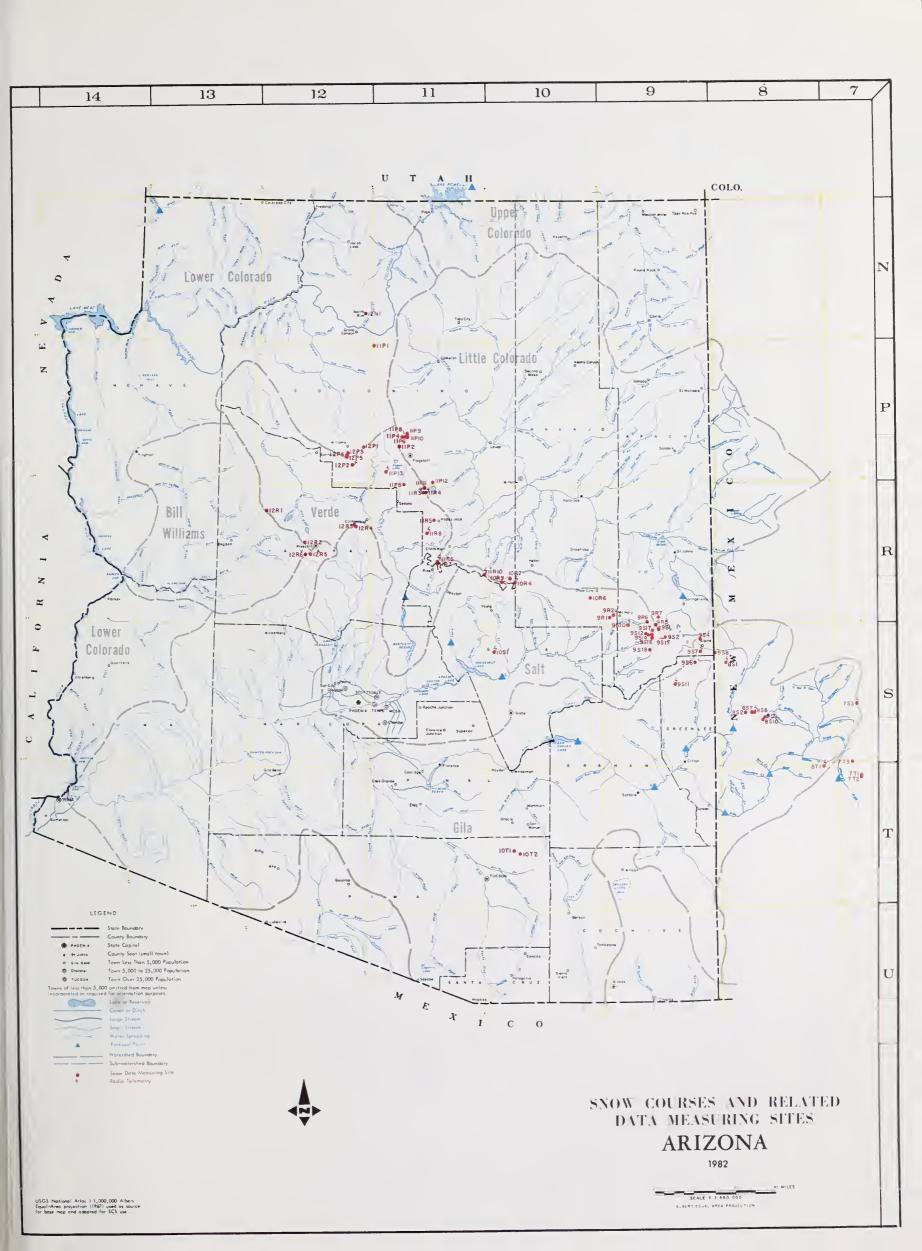
Baldy 9220 2/10 24 6.0 2.4 5.5	ABOUT FEBRUARY 15, 1982			THIS YEAR	Y	PAST RI	CORD
Baldy 9220 2/10 24 6.0 2.4 5	DRAINAGE BASIN and/or SNOW COURSE					Water Conte	
Baldy 9220 2/10 24 6.0 2.4 5.0 BALDY SNOTEL 9220 2/15 — 8.4 3.8 — Canyon Creek 7500 2/11 21 5.6 0.9 2 Canyon Point 7600 2/12 30 8.6 1.4 6 Cheese Springs 8600 2/11 33 7.5 3.0 5 Forest Dale 6430 2/12 3 1.2 0.1 1 Ft. Apache 9160 2/10 28 6.5 2.9 6 Fort Valley 7350 2/16 19 6.0 0.4 1 Happy Jack 7630 2/12 37 10.7 1.3 1 Heber 7640 2/11 25 7.3 1.1 1 HEBER SNOTEL 7640 2/15 — 9.6 1.3 Lake Mary 6970 2/16 21 6.1 0.0 McNary 7225 2/15 — 5.1 0.5 Mormon Lake <th>NAME</th> <th>Elevation</th> <th>of Survey</th> <th>(inches)</th> <th>(Inches)</th> <th>Last Year</th> <th>Average +</th>	NAME	Elevation	of Survey	(inches)	(Inches)	Last Year	Average +
Baldy 9220 2/10 24 6.0 2.4 BALDY SNOTEL 9220 2/15 — 8.4 3.8 Canyon Creek 7500 2/11 21 5.6 0.9 Canyon Point 7600 2/12 30 8.6 1.4 Cheese Springs 8600 2/11 33 7.5 3.0 5 Forest Dale 6430 2/12 3 1.2 0.1 1 Ft. Apache 9160 2/10 28 6.5 2.9 6 Fort Valley 7350 2/16 19 6.0 0.4 1 Happy Jack 7630 2/12 37 10.7 1.3 1 Heber 7640 2/11 25 7.3 1.1 1 HeBER SNOTEL 7640 2/15 — 9.6 1.3 Lake Mary 6970 2/16 21 6.1 0.0 McNary 7225 2/15 — <td>TE COLORADO PIVER</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	TE COLORADO PIVER						
BALDY SNOTEL Canyon Creek Canyon Point Canyon Point Cheese Springs Rote Bale Forest Dale Forest Dale Fort Valley Happy Jack Heber HEBER SNOTEL Lake Mary MCNARY SNOTEL Mormon Mountain Mormon Mountain Mormon Mountain Mormon Mountain Mormon Mountain Mormon Mountain Mormon Muntain Mormon Muntai	LE COLORADO RIVER						
BALDY SNOTEL Canyon Creek Canyon Point Canyon Point Cheese Springs Rote Bale Forest Dale Forest Dale Fort Valley Happy Jack Heber HEBER SNOTEL Lake Mary MCNARY SNOTEL Mormon Mountain Mormon Mountain Mormon Mountain Mormon Mountain Mormon Mountain Mormon Mountain Mormon Muntain Mormon Muntai	1dv	9220	2/10	24	6.0	2.4	5.9
Canyon Creek 7500 2/11 21 5.6 0.9 Canyon Point 7600 2/12 30 8.6 1.4 2 Cheese Springs 8600 2/11 33 7.5 3.0 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5		1		_			
Canyon Point 7600 2/12 30 8.6 1.4 2 2 2 30 8.6 Cheese Springs 8600 2/11 33 7.5 3.0 5 5 3.0 Forest Dale 6430 2/12 3 1.2 0.1 5 5 5.3 1.2 5				21	l l		3.5
Cheese Springs							4.0**
Forest Dale 6430 2/12 3 1.2 0.1 1	•		1				5.6**
Ft. Apache 9160 2/10 28 6.5 2.9 6 Fort Valley 7350 2/16 19 6.0 0.4 3 Happy Jack 7630 2/12 37 10.7 1.3 3 Heber 7640 2/11 25 7.3 1.1 3 HEBER SNOTEL 7640 2/15 — 9.6 1.3 3 Lake Mary 6970 2/16 21 6.1 0.0 6 McNary 7225 2/12 20 6.7 1.0 6 McNARY SNOTEL 7225 2/15 — 5.1 0.5 6 Mormon Lake 7350 2/16 30 9.8 1.6 6 Mormon Mountain 7500 2/16 38 11.9 1.6 6 Mormon Mtn. Summit #2 8470 NOT SCHEDULED 7	. 0				1.2		1.1
Fort Valley 7350 2/16 19 6.0 0.4 19 Happy Jack 7630 2/12 37 10.7 1.3 11 19 10.7 1.3 11 19 10.7 1.3 11 19 10.7 1.3 11 19 10.7 1.3 11 19 10.7 1.3 11 19 10.7 1.3 11 19 10.7 1.3 11 19 10.7 1.3 11 19 10.7 1.3 11 19 10.7 1.3 11 19 10.7 11 10 10.0 10 10 10 10 10 10 10 10 10 10 10 10 10	. Apache	9160	2/10	28	6.5		6.4
Happy Jack 7630 2/12 37 10.7 1.3 1.1 Heber 7640 2/11 25 7.3 1.1 1.1 HEBER SNOTEL 7640 2/15 - 9.6 1.3 Lake Mary 6970 2/16 21 6.1 0.0 McNary 7225 2/12 20 6.7 1.0 McNARY SNOTEL 7225 2/15 - 5.1 0.5 Mormon Lake 7350 2/16 30 9.8 1.6 Mormon Mountain 7500 2/16 38 11.9 1.6 Mormon Mountain 7500 2/16 38 11.9 1.6 Mormon Mtn. Summit #2 8470 NOT SCHEDULED Nutrioso * 8500 2/16 6 2.2 0.0 Promontory Butte 7900 2/12 52 16.0 3.4 10 PROMONTORY SNOTEL 7900 NO REPORT 2.9 Snow Bowl #1 10260 2/13 66 16.9 3.1 Snow Bowl #2 11000 2/13 48 12.5 5.3 13	•	7350	2/16	19	6.0		2.0
HEBER SNOTEL 7640 2/15 - 9.6 1.3 1.4 1.5 1	ppy Jack	7630	2/12	37	10.7	1.3	3.8
Lake Mary 6970 2/16 21 6.1 0.0 McNary 7225 2/12 20 6.7 1.0 2 McNary SNOTEL 7225 2/15 - 5.1 0.5 Mormon Lake 7350 2/16 30 9.8 1.6 Mormon Mountain 7500 2/16 38 11.9 1.6 Mormon Mountain 7500 2/16 38 11.9 1.6 Mormon Mtn. Summit #2 8470 NOT SCHEDULED Nutrioso * 8500 2/16 6 2.2 0.0 Promontory Butte 7900 2/12 52 16.0 3.4 10 PROMONTORY SNOTEL 7900 NO REPORT 2.9 Snow Bowl #1 10260 2/13 66 16.9 3.1 Snow Bowl #2 11000 2/13 48 12.5 5.3 13	ber	7640	2/11	2 5	7.3	1.1	3.7
McNary 7225 2/12 20 6.7 1.0 2 McNary SNOTEL 7225 2/15 - 5.1 0.5 - Mormon Lake 7350 2/16 30 9.8 1.6 2 Mormon Mountain 7500 2/16 38 11.9 1.6 2 Mormon Mountain 7500 2/15 - 10.2 1.7 - Mormon Mtn. Summit #2 8470 NOT SCHEDULED - - - - Nutrioso * 8500 2/16 6 2.2 0.0 3.4 10 Promontory Butte 7900 NO REPORT 2.9 - 3.4 10 Snow Bowl #1 10260 2/13 66 16.9 3.1 8 Snow Bowl #2 11000 2/13 48 12.5 5.3 13	BER SNOTEL	7640	1	-		1.3	
MCNARY SNOTEL 7225 2/15 - 5.1 0.5 Mormon Lake 7350 2/16 30 9.8 1.6 Mormon Mountain 7500 2/16 38 11.9 1.6 MORMON MOUNTAIN SNOTEL 7500 2/15 - 10.2 1.7 Mormon Mtn. Summit #2 8470 NOT SCHEDULED - - Nutrioso * 8500 2/16 6 2.2 0.0 Promontory Butte 7900 2/12 52 16.0 3.4 10 PROMONTORY SNOTEL 7900 NO REPORT 2.9 2.9 3.1 8 Snow Bowl #1 10260 2/13 66 16.9 3.1 8 Snow Bowl #2 11000 2/13 48 12.5 5.3 13	ke Mary	6970				0.0	
Mormon Lake 7350 2/16 30 9.8 1.6 4 Mormon Mountain 7500 2/16 38 11.9 1.6 4 MORMON MOUNTAIN SNOTEL 7500 2/15 - 10.2 1.7 - Mormon Mtn. Summit #2 8470 NOT SCHEDULED - - - - Nutrioso * 8500 2/16 6 2.2 0.0 - - Promontory Butte 7900 2/12 52 16.0 3.4 10 PROMONTORY SNOTEL 7900 NO REPORT 2.9 - Snow Bowl #1 10260 2/13 66 16.9 3.1 8 Snow Bowl #2 11000 2/13 48 12.5 5.3 13	Nary	7225		20		1.0	2.4
Mormon Mountain 7500 2/16 38 11.9 1.6 2 MORMON MOUNTAIN SNOTEL 7500 2/15 - 10.2 1.7 - Mormon Mtn. Summit #2 8470 NOT SCHEDULED Nutrioso * 8500 2/16 6 2.2 0.0 2 Promontory Butte 7900 2/12 52 16.0 3.4 10 PROMONTORY SNOTEL 7900 NO REPORT 2.9 - - Snow Bowl #1 10260 2/13 66 16.9 3.1 8 Snow Bowl #2 11000 2/13 48 12.5 5.3 13	NARY SNOTEL	7225		-		0.5	
MORMON MOUNTAIN SNOTEL 7500 2/15 - 10.2 1.7 Mormon Mtn. Summit #2 8470 NOT SCHEDULED Nutrioso * 8500 2/16 6 2.2 0.0 3.4 Promontory Butte 7900 2/12 52 16.0 3.4 10 PROMONTORY SNOTEL 7900 NO REPORT 2.9 2.9 Snow Bowl #1 10260 2/13 66 16.9 3.1 8 Snow Bowl #2 11000 2/13 48 12.5 5.3 13		1					4.1
Mormon Mtn. Summit #2 8470 NOT SCHEDULED		I		38			4.8
Nutrioso * 8500 2/16 6 2.2 0.0 2 Promontory Butte 7900 2/12 52 16.0 3.4 10 PROMONTORY SNOTEL 7900 NO REPORT 2.9 2.9 2.9 2.9 Snow Bowl #1 10260 2/13 66 16.9 3.1 8 Snow Bowl #2 11000 2/13 48 12.5 5.3 13		1		-	10.2	1.7	
Promontory Butte 7900 2/12 52 16.0 3.4 10 PROMONTORY SNOTEL 7900 NO REPORT 2.9 2.9 3.1<					•		
PROMONTORY SNOTEL 7900 NO REPORT 2.9 Snow Bowl #1 10260 2/13 66 16.9 3.1 Snow Bowl #2 11000 2/13 48 12.5 5.3 13					ł .		1.9
Snow Bowl #1 10260 2/13 66 16.9 3.1 8 Snow Bowl #2 11000 2/13 48 12.5 5.3 13	•		1		16.0		10.0**
Snow Bow1 #2 11000 2/13 48 12.5 5.3 13					16 0		
					Ī	1	8.4
Wilson Lake 9000 2710 37 9.0 3.7		1			l .		13.3**
	Ison Lake	9000	2/10	57	7.0	3./	8.3**
		,					
					,		
					- 🖛		
.*					.*		
+ 1963-77 15-4000 poriod (+) Adiacout draines (10/2 77 4/in/4)	63-77 15-400h makind (+) A	diana	+ draine	1 1	10/2 7	And to a per	4
† 1963-77 15-year period. (*) Adjacent drainage. (**) 1963-77 Adjusted Average. (A) Aerial observation: water content estimated. Snotel date	onano (A) Annial chiamati	an: "	ton acres	ton+ 01+	matad		
Average. (A) Aerial observation: water content estimated. Snotel data edited.		.011. W	nel con	en est	inacea.	Shorer	ara is
Current.	·····						

PRECIPITATION (Inches) ABOUT MARCH 1, 1982

PRECIPITATION (Inches) ABOUT MARCH 1, 1982 CURRENT INFORMATION FROM APPROX. NOV. TO DATE								
DRAINAGE BASIN and PRECIPITATION GAGE LOCATION	ELEVATION	Date of	Month's	Average +	This Year	Average +	Percent of	
		Reading	Precipitation				Average	
GILA RIVER								
Silver Creek Divide	9000			2.25*		10.51*		
Hannagan Meadows **	9030	2/25	4.10	2.24	11.10	9.60	116	
Frisco Divide **	8000	2/25	2.25	1.21	5.25	4.53	116	
SALT RIVER								
Canyon Point	7600	2/25	4.53	2.50*	16.74	12.63	156	
Hannagan Meadows **	9030	2/25	4.10	2.24	11.10	9.60	116	
Little Wildcat	7600	2/25	3.81	2.17	14.83	11.18	133	
(Heber Snow Course)								
Maverick Fork	9050	2/25	3.60	2.16	10.80	9.88	109	
Workman Creek **	6970			3.01		13.19		
Wilson Lake	9100	2/24	2.60	1.96*	10.30	8.96*	115	
VERDE RIVER								
Baker Butte	7300	2/25	5.11	2.84*	16.09	12.36*	130	
Copper Basin Divide	6720	2/25	3.72	2.09	11.70	8.89	132	
Fort Valley **	7350	2/25	2.64	1.44	9.13	6.66	137	
Happy Jack **	7480	2/26	5.25	2.24	15.68		168	
Mingus Mountain	7660	2/25	4.58	2.13	12.40		171	
Mormon Mountain	7500	2/25	5.31	2.76	18.11	13.20	137	
White Horse Lake Jct.**	1	2/26	4.30	3.91	14.40	11.21	128	
LITTLE COLORADO								
Greer Lakes	8500	2/25	1.20	1.06	4.40	4.99	88	
Little Wildcat	7600	2/25	3.81	2.17	14.83		133	
(Heber Snow Course)	7000	2/25	3.01	2.1/	14.05	11.10	155	
Sheep Crossing	9125	2/25	3.40	1.94	10.72	8.87	121	
(Baldy Snow Course)	9123	2/25	3.40	1.94	10.72	0.07	121	
1963-77 Average * Adjusted Average ** Data Supplied by U.S. Forest Service								

PRECIPITATION (Inches) ABOUT MARCH 1, 1982 (SNOTEL SITES)

RECIPITATION (Inches) ABOUT MARCH 1, 1982 (SNOTEL SITES) CURRENT INFORMATION FROM APPROX. NOV. 1 TO DATE								
DRAINAGE BASIN and PRECIPITATION GAGE LOCATION	ELEVATION	Date of	Month's	Average +		Average +	Percent of	
The state of the s		Reading	Precipitation	Average	11110 1021	Average	Average	
GILA RIVER								
Coronado Trail	8400	3/1	2.5		7.0			
Hannagan Meadows	8960	3/1	3,4		11.0			
Frisco Divide	8000	3/1	1.7		5.3			
Silver Creek Divide	9000	3/1	4.6		12.4			
Lookout Mountain	8150	3/1	2.3		7.2			
Signal Peak	8360	3/1	2.6		11.6			
SALT RIVER								
Promontory	7930							
Heber	7640	3/1	3.4		14.7			
Hawley Lake	8250	3/1	4.1		14.7			
McNary	7200	3/1	3.4		10.3			
Bonito Rock	8270	3/1	3.9		14.2			
Hannagan Meadows	8960	3/1	3.4		11.0			
Maverick Fork	9050	3/1	3.8		11.1			
Coronado Trail	8400	3/1	2.5		7.0			
Workman Creek	6900	3/1	5.2		21.1			
		0, =						
VERDE RIVER								
White Horse Lake	7180	3/1	3.5		13.9			
Fry	7200	3/1	3.3		13.7			
Mormon Mountain	7500	3/1	4.3		15.5			
Sugar Loaf	6120	3/1	3.4		11.2			
Baker Butte	7300	3/1	4.5		15.8			
LITTLE COLORADO								
Baldy	9125	3/1	3.2		10.5			
McNary	7200	3/1	3.4		10.3			
Heber	7640	3/1	3.4		14.7			
Promontory	7930							
					.•			
					1.0			
Snotel data edited								
	1	}				1	<u> </u>	



INDEX TO SNOW COURSES

NUMBER	NAME	SEC.	TWP.	RGE.	ELEV.	DRAINAGE	OBSERVER	RECORD BEGAN
11P10A 11R6PSPRT 11R7 9S1APSPRT 9S15 9S16 10T1 9S6 12P5 12P4	Agassiz Baker Butte Baker Butte #2 Baldy #2 Baldy #3 Bear Wallow Beaver Head Bill William Intermediate Bill Williams Summit	32 4 9 28 12 13 6 13 17	23N 12N 12N 7N 6N 6N 12S 4N 21N	7E 9E 9E 27E 26E 26E 16E 30E 2E 2E	11200 7300 7700 9125 9750 10950 8100 8000 8550 8950	Little Colorado Verde Verde Little Colorado Little Colorado Little Colorado Gila San Francisco Cataract Verde	SCS-CF* SCS SCS SCS SCS SCS FS FS FS FS FS	1968 1966 1971 1950 1963 1963 1948 1948 1938
9S18PSPRT 12N1 12R1 10R7 10R9P 12P1 9R7 12R6P	Bonito Rock Bright Angel Camp Wood Canyon Creek #2 Canyon Point Chalender Cheese Springs Copper Basin Divide	34 3 18 28 27 28 23	5N 33N 16N 11N 11N 22N 8N 13N	26E 3E 6W 15E 14E 3E 27E 3W	8270 8400 5700 7500 7600 7100 8600 6720	Salt Bright Angel Creek Verde Little Colorado Salt Verde Little Colorado Verde	SCS NPS FS SCS SCS FS SCS SCS	1979 1947 1946 1958 1967 1947 1969
9S7PSPRT 7T1 7T2 11P13PSPRT 10R6 9R5 11P2P 8S1PSPRT 12R4 11P1	Coronado Trail Emory Pass #1 Emory Pass #2 Fry Forest Dale Ft. Apache Ft. Valley Frisco Divide Gaddes Canyon Grand Canyon	26 16 16 35 2 18 22 31 11 21	5N 16S 16S 20N 9N 7N 22N 6S 15N 30N	30E 9W** 9W** 5E 21E 27E 6E 20W** 2E 4E	8000 7800 7800 7220 6430 9160 7350 8000 7600 7500	San Francisco Mimbres Mimbres Verde Salt Little Colorado Little Colorado San Francisco Verde Hance Creek	FS SCS SCS BIA SCS FS FS SCS NPS	1938 1967 1967 1978 1939 1951 1947 1938 1954
9S11PSPRT 11R5P 9R10PSPRT 10R4PSPRT 8S9A 11P9P 11P8P 12R2 11P12 7S3PSPRT	Hannagan Meadows Happy Jack Hawley Lake Heber Hummingbird Inner Basin #1 Inner Basin #2 Iron Springs Lake Mary Lookout Mountain	19 30 13 28 19 28 28 22 21	3N 16N 7N 11N 11S 23N 23N 14N 19N	29E 9E 24E 15E 17W** 7E 7E 3W 9E	9090 7630 8300 7600 10550 10000 9750 6200 6930 8500	San Francisco Verde Salt Little Colorado Gila Little Colorado Little Colorado Little Colorado Little Colorado Little Colorado	FS FS BIA SCS SCS SCS-CF* SCS SCS SCS SCS	1964 1951 1966 1950 1964 1967 1967 1946 1975
9S2APSPRT 7T3A 9R2PSPRT 9R1 12R3 8S2 11R4 11R3APSPRT 11R11 9S12A	Maverick Fork McKnight Cabin McNary Milk Ranch Mingus Mountain Mogollon Mormon Lake Mormon Mountain Mormon Mountain Mormon Mountain	13 10 23 33 3 2 13 14 2	6N 15S 8N 8N 15N 11S 18N 18N 18N	27E 10W** 23E 23E 2E 19W** 8E 8E 8E 26E	9150 9300 7200 7000 7100 7000 7350 7500 8470 11200	Salt Mimbres Salt Salt Verde San Francisco Little Colorado Verde Little Colorado Salt	SCS SCS BIA BIA SCS SCS SCS SCS SCS SCS SCS	1950 1967 1939 1941 1947 1953 1947 1950 1975
11P5 9S4 11R10PSPRT 8S7 10T2 8T1PSPRT 8S8PSPRT 9S14A 11P4 11P6	Newman Park Nutrioso Promontory Butte Redstone Trail Rose Canyon Signal Peak Silver Creek Divide Smith Cienega Snow Bowl #1 Snow Bowl #2	25 23 5 5 15 13 4 10 36 31	19N 6N 11N 11S 12S 16S 11S 6N 23N 23N	6E 30E 13E 18W** 16E 13W 18W** 26E 6E 7E	6750 8500 7930 8600 7300 8360 9000 10050 10260 11000	Verde San Francisco Little Colorado San Francisco Gila Gila San Francisco Salt Verde Verde	SCS FS SCS SCS FS SCS SCS SRP-SCS FS FS	1963 1938 1973 1961 1948 1977 1964 1966 1961
9S8 9S17 11R8PSPRT 12P2PSPRT 12R5 8S10A 12P3 9R6P 10S1PSPRT	State Line Sunrise Summit Sugarloaf White Horse Lake Jct. White Spar Whitewater Williams Ski Run Wilson Lake Workman Creek	6 36 8 2 19 19 9 4 33	6S 7N 8E 20N 13N 11S 21N 7N 6N	21W** 26E 14N 2E 2W 17W** 2E 26E 14E	8000 10600 6120 7180 6000 10750 7720 9000 6900	San Francisco Salt Verde Verde Verde Gila Cataract Salt	FS SCS SCS FS SCS SCS FS SCS FS	1938 1972 1978 1967 1963 1964 1967 1966

A Aerial Snow Depth Marker

Precipitation Storage Gage

R Radio Telemetry (SNOTEL)

SP Snow Pressure Pillow

T Temperature

** NM Principal Meridian

[★] City of Flagstaff

The Following Organizations Cooperate in the Arizona Snow Survey Work

FEDERAL

Department of Agriculture Soil Canservation Service Farest Service Apache-Sitgreaves Farest Coconina Forest Coronado Farest Gila Farest Kaibab Forest Prescott Farest Racky Mountain Forest and Range Experiment Station Tonto Forest Department of Cammerce NOAA, National Weather Service Department of Interior Bureau af Reclamation Region 111 Gealogical Survey Arizona District New Mexica District Bureau of Indian Affairs Fart Apache Reservation San Carlas Irrigation Project National Park Service Grand Canyon National Park Gila Water Commissioner Saffard, Arizana

STATE

Arizona Game and Fish Department
Arizona State Parks Board
Arizona Department of Water Resources
University af Arizana
Arizana Agricultural Experiment Station
Water Resaurce Research Center
Department af Watershed Management

MUNICIPAL

City of Flagstaff

IRRIGATION PROJECTS

Salt River Valley Water User's Association Phaenix, Arizana San Carlas Irrigation and Drainage District Caolidge, Arizana Maricapa County Municipal Water Canservation District

PRIVATE

Southwest Farest Industries, Inc.
McNary, Arizana
Fort Apache Indian Reservation
White Mountain Recreation Enterprises

Other arganizations and individuals furnish valuable information for the snaw survey reports. Their caaperation is gratefully acknowledged.

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
FEDERAL BUILDING ROOM 3008
230 NORTH FIRST AVENUE

OFFICIAL BUSINESS PENALTY FOR PRIVATE USE, \$300

PHOENIX, ARIZONA 85025

POSTAGE AND FEES PAID
U. S. DEPARTMENT OF
AGRICULTURE
AGE-101



FEDERAL - STATE - PRIVATE

COOPERATIVE SNOW SURVEYS

Furnishes the basic data necessary for forecasting water supply for irrigation, domestic and municipal water supply, hydro-electric power generation, navigation, mining and industry

"The Conservation of Water begins with the Snow Survey"